VIII. A Revision of the British Species of Corticaria. By G. R. WATERHOUSE, Esq., F.Z.S., &c.

[Read Jan. 3rd, 1859.]

1. Corticaria pubescens. C. oblonga, convexa, longius pubescens, antennis pedibusque flavescentibus; thorace cordato, supra densius punctato, postice foveolato, lateribus denticulato; elytris amplis, crebre seriatim punctatis.

Long. $1\frac{1}{4}$ lin.

Latridius pubescens (Illiger), Gyll. Ins. Succ. iv. 123, 1.

Corticaria — , Steph. Illustr. iii. 106, 1; Manual, 129, 1047, and Collection.

_____, Mannerh. Germ. Zeitschr. v. 17, 1.

----- punctulata, Marsh., Ent. Brit. 109, 8.*

------------------------, Kirby's Collection.

The largest of the British species, and further distinguished by its smallish short cordiform thorax, and ample elytra with closely packed rows of punctures. The anterior tibiæ are quite straight and simple in both sexes, and there is no difference in the anterior tarsi indicative of sexual distinction—or at least it is very indistinct—for in some specimens I fancy I have noticed the basal joint is rather larger than in others. The antennæ have the joints more elongated than in the species next to be noticed. Its colouring varies considerably: most commonly the head and thorax are fusco-ferrugineous, the elytra piceous, becoming paler in the region of the shoulders. Sometimes the whole insect is piceous

* It is not my intention here to enter into the question of priority of names, &c.; I have retained throughout this paper the names most commonly used, otherwise I should have been inclined to apply Marsham's name to the present species. The oldest name given among the synonymes of this species is "fenestralis," of Fabricius, but there does not appear to be any good evidence that it really belongs to our insect; then next in date comes the name "longicornis" of Herbst, but as Herbst has given the same name to another species—a name universally adopted for that species—we would pass that over, and come to the next oldest name, and that is "punctulata" of Marsham. There can be no reasonable doubt about Marsham's species, which was published in 1802; whilst the name "pubescens" was published first by Gyllenhal in 1827. (excepting the legs and antennæ), sometimes testaceous. The pubescence is of a dirty white hue.

Moderately common.

 Corticaria crenulata. C. oblonga, convexa, longius pubescens, nigro-picea, antennis pedibusque flavescentibus; thorace subrotundato, coleopteris angustiore, lateribus denticulato, supra convexo, punctato, postice fovea impresso; elytris oblongo-ovatis, crebre seriatim punctatis.

Long. 1 lin.

Mas. femoribus incressatis; tibiis anticis, intermediisque ad apicem intus sub-productis, extus oblique truncatis; tarsi antici articulo primo dilatato.

Latridius crenulatus (Schüppel), Gyll. Ins. Suec. iv. 125, 2.

Corticaria crenulata, Steph. Illustr. iii. 106, 2; Manual, 129, 1048.

- -----, Mannerh. Germ. Zeitschr. v. 22, 6.

I possess specimens of this insect showing different shades of colouring from testaceous to brown, pitchy brown, and black (in the last the humerus is usually paler); but in the most common condition, the head and thorax are black, or nearly so, and the elytra rufous-brown, with the disc dusky.

Not uncommon in the neighbourhood of London, but most plentiful, according to my experience, near the sea, under decaying vegetable matter. Common at Southend.

Stephens has evidently taken his description of the present species (and indeed all other species of Corticaria, excepting C. pallida) from Gyllenhal, but in the diagnosis he has left out one word referring to the sculpturing of the elytra, and by so doing has omitted the very pith and marrow of the description. In the original the elytra are described as " confertim punctato-striata," and in the "Illustrations" the word "confertim" is left out. This is unfortunate, since it so happens that C. crenulata, C. pubescens (where the same omission has also been made) and C. serrata are three species which, though differing much in other respects, are pre-eminently distinguished by this peculiarity in the sculpturing, that instead of having about eight ordinary punctate striæ, they have about double that number of closely-packed rows of punctures, and the ordinary striæ are not distinguishable. In speaking of C. serrata these remarks should be slightly modified, for here the punctuation of the true striæ becomes rather more evident. In other British species the punctures of the interstices of the

striæ are remote and usually so minute that it becomes doubtful whether by noticing them one does not give them a prominence which is scarcely desirable. Gyllenhal, in describing some of these (*C. denticulata*, for instance), states that the interstices are impunctate, although, strictly speaking, such is not the case.

Under the name C. crenulata, stand in the Stephensian cabinet three insects; the first is C. denticulata; the second, C. pubescens, and the third, C. crenulata.

 Corticaria denticulata. C. oblonga, convexa, brevius pubescens, nigro-picea, antennis pedibusque flavescentibus; thorace sub-rotundato, coleopteris angustiore, supra convexo, punctato, fovea postice impresso, lateribus subdenticulato; elytris oblongo-ovatis, plerumque fuscis, punctato-striatis, interstitiis convexiusculis, punctis minutissimis seriatim dispositis.

Long. 1 lin.

Mas. femoribus incrassatis; tibiis anticis, intermediisque ad apicem intus angulatim productis, extus oblique truncatis; tarsi antici articulo primo dilatato.

Latridius denticulatus (Schüppel), Gyll. Ins. Suec. iv. 126, 3.

Corticaria denticulata, Steph. Illustr. iii. 107, 3; Manual, 129, 1049 (not of Collection).

____, Mannerh. Germ. Zeitschr. v. 23, 7.

This species has many characters in common with the preceding. In size and form there is scarcely any difference; in both, the thorax is about one-third narrower than the elytra at the broadest part; has the sides boldly rounded, and with the broadest part rather in front of the middle; but in *C. denticulata* the thorax is rather more attenuated behind than in *C. crenulata*, and the crenulations are less distinct. In the form of the head, and in the structure of the antennæ, there is no palpable difference. In the form of the elytra *C. denticulata* differs, in having the shoulders more gently rounded and the apex more obtusely rounded, but it is in the sculpture of these organs that a good distinction is perceptible. Here the elytra have about eight regular punctate striæ; the interstices are rather convex, and nearly impunctate.

In colouring, *C. denticulata* varies considerably, but in the most usual condition the head and thorax are black, and the elytra brown, with the region of the suture and the outer margin more or less dusky.

Stephens has transferred to the pages of the "Illustrations"

Gyllenhal's description of the present species, but he appears to have mistaken the *C. crenulata* for it, *C. denticulata* being represented in his Cabinet by two specimens of that insect.

Upon two or three occasions has the insect here described been sent from Germany as the C. longicornis, but C. longicornis is said to be a black insect, and the present species is very rarely black; and furthermore it would appear by the descriptions that C. longicornis is rather larger and has a longer thorax. It is always compared with C. pubescens, but is said to differ in having the interstices of the striæ impunctate. Such being the case, a comparison of the characters of C. longicornis with those of the C. denticulata is much to be desired.

I may here mention that, although *C. longicornis* is described in Stephens' works (the description being from Gyllenhal), other insects seem to have been mistaken for it, *C. longicornis* being represented in Stephens' Collection by one specimen of *C. pubescens*, and one of *C. denticulata*.

4. Corticaria fulva. C. elongata, convexiuscula, testacea, longius pilosa; oculis minus prominulis, nigris; thorace cordato, punctato, fovea rotundata postice impresso; elytris elongato-ovatis, striato-punctatis, interstitiis remote punctulatis.

Long. $\frac{5}{6}$ —1 lin.

Corticaria fulva, Chevrier, Villa Catal. 1835, p. 45.

Mannerh. Germ. Zeitschr. v. 42, 32.

The largest specimens of this insect are equal to C. crenulata in length, but the form is narrower; the thorax relatively smaller, and of a different form; the elytra have the shoulders more gently rounded, and the apex less acuminate. It is entirely testaceous (excepting the eyes, which are black) and clothed with rather long, whitish hairs. Head nearly one-third narrower than the thorax; the eyes smaller and less prominent than in most other species; forehead convex and somewhat remotely punctured; antennæ not differing perceptibly in structure from those of C. crenulata. Thorax but little broader than long; truncated in front, very gently rounded behind; the broadest part rather in front of the middle, where the sides are rounded, and from the middle to the hinder part the sides converge, so that at the hinder angles the width is reduced to about the same as it is at the insertion of the head; upper surface but moderately convex, and presenting a rather large, shallow fovea behind, and pretty thickly punctured;

the crenulations at the sides distinct. Elytra elongate-ovate; about one-fourth broader than the thorax, the shoulders gently rounded, the broadest part near the middle, the apex rounded: owing to the long hairs which cover the elytra, and the want of distinct striæ, the sculpturing of the elytra has a somewhat confused appearance, but careful examination shows that it consists of about eight rows of punctures, which, though moderately large, are by no means strong, and in parts they are somewhat irregular; in each of the interstices is a row of very minute punctures, which, for the most part, are remote from each other; on the basal part of the elytra minute transverse rugulæ are observable. The legs are moderate (the femora not incrassated in the males, such as we find them in *C. crenulata*); the anterior tibiæ are very gently bisinuate within and truncated at the apex externally in some specimens, which I take to be the males.

One specimen of this insect stands in Mr. Stephens' collection to represent the *C. elongata* of the "Illustrations," but it does not agree with the description there given, that description being taken from Gyllenhal, and referring to the *C. clongata* of that author. I have met with the present species upon several occasions, but unfortunately omitted to note down the localities, excepting of some few specimens which were taken recently by my sons in some hay left on the ground, in the precincts of the British Museum, where some horses had been fed.

5. Corticaria serrata. C. oblonga, convexa, fusco-ferruginea, breviter pubescens; thorace subrotundato, lateribus fortius denticulato, supra convexo crebre, sub-rugose punctato, fovea sat magna postice impresso; elytris oblongo-ovatis, plerumque piceis, crebre striato-punctatis, basi transversim rugulosis.

Long. $\frac{3}{4}$ lin.

Dermestes serratus, Paykul, Faun. Suec. i. 300, 31. Latridius —, Gyll. Ins. Suec. iv. 126, 4. Corticaria serrata, Mannerh. Germ. Zeitschr. v. 28, 14.

Head but little narrower than the thorax; the eyes large and prominent; forehead moderately convex, punctured; antennæ scarcely equal to the head and thorax in length. Thorax rather broader than long, the sides rounded, and in such a manner that the broadest part of the thorax is rather in front of the middle; the denticulations (about eight in number) more acute and prominent than usual; the anterior angles rounded; the posterior armed

139

with one of the stronger lateral teeth; the posterior margin produced and rounded in the middle; the upper surface convex, thickly and sub-rugosely punctured, and with a large fovea behind. Elytra oblong ovate; at the shoulders (which are rounded) but little broader than the thorax at the broadest part; above convex, and with rows of punctures packed closely side by side, but among these the rows belonging to the ordinary eight striæ are distinguishable, the punctures being a little larger and more closely packed in the longitudinal direction than those of the interstices; on the basal part of the elytra the interstices are transversely rugulose. The rather short antennæ, as well as the legs, are rufotestaceous.

Like most other species, this varies in colouring, being not unfrequently uniform dull rufous, but in full-coloured specimens the elytra are more or less pitchy, darker than the head and thorax. The small size, combined with the sculpturing of the elytra, and the strongly serrated sides of the thorax, will serve to distinguish this species. *C. crenulata*, which approaches it most nearly in the sculpturing of the elytra (see observations attached to that species) besides being about double the bulk, differs in having the thorax more ample, more regularly rounded, less strongly crenulate at the sides, the head proportionately smaller, the antennæ longer, and, in the male sex, has the thighs much incrassated, which is not the case in the present species.

I have found one specimen of this species in the nest of *Formica rufa* at Weybridge, but several other specimens, which I have taken at different times, were certainly not in ant's nests.

6. Corticaria cylindrica. C. sub-cylindrica, testacea, brevius pubescens; thorace sub-rotundato, antice truncato, lateribus crenato, supra punctato, postice foveolato; elytris elongatis, fortius punctato-striatis, interstitiis punctis sparsis adspersis, basi transversim rugulosis, marginibus plerumque infuscatis.

Long. $\frac{5}{6}$ - 1 lin.

Corticaria cylindrica, Mannerh. Germ. Zeitschr. v. 35, 23.

— borealis, Wollaston, Append. to Zoologist, ccvi. (1855).

Among the British species this is certainly most near to the *C*. serrata, but it is readily distinguished by its larger size, clear testaceous colour, and by the almost impunctate interstices to the striæ of the elytra. The head is rather large, and the eyes, which are black, are large and very prominent; the forehead convex and distinctly punctured; antennæ about equal to the head and thorax in length. Thorax a little broader than long, and but little broader than the head; the sides boldly rounded; the widest part rather in front of the middle; the crenulations distinct; upper surface distinctly, but not very thickly, punctured; the fovea behind small, and shallow. Elytra at the base scarcely as wide as the thorax at the broadest part, but becoming gradually wider to about the posterior third, where they are distinctly wider than the thorax; the apex rounded; the punctures of the striæ are rather strong and in parts somewhat irregular; the interstices with a few scattered punctures. Three out of four specimens in my Collection have the suture and outer margins of the elytra dusky; the fourth is entirely testaceous.

One of my specimens was found by me at Brockenhurst, in the New Forest, in September, 1856. I have no note of the localities of the others. Mr. Wollaston found his specimens on the coast of Durham.

7. Corticaria elongata. C. sub-linearis, depressa, testacea, pubescens; thorace transverso, elytrorum fere latitudine, supra puctulato, postice fovea transversa impresso; elytris punctato-striatis, interstitiis vix punctulatis.

Long. $\frac{3}{4} - \frac{5}{6}$ lin.

Latridius elongatus (Schüprel), Gyilenhal, Ins. Suec. iv. 130, 8. Corticaria ferruginea, Marsh. Ent. Brit. 111, 15?

_____, of Kirby's Collection. _____, of Stephens' Collection. ______ elongata, Stephens, Illustr. iii. 108, 7; Manual, 130, 1053.

- -----, Mannerh. Germ. Zeitschr. v. 44, 35.

This species is readily distinguished by its linear, depressed form, and uniform pale colouring. Head narrower than the thorax; forehead rather convex and punctulated; eyes prominent, and black; antennæ about equal to the head and thorax in length. Thorax distinctly broader than long, and nearly equal to the elytra in width; truncated in front; the sides nearly straight and parallel, and obscurely crenulated behind; the anterior angles rounded, the posterior angles, right-angles; the hinder margin produced and rounded in the middle. Elytra moderately elongate, but little convex; the sides nearly parallel, the apex rounded; punctate-striate, the interstices each with a row of small pale hairs, and a series of exceedingly minute and indistinct punctures. The anterior and middle tibiæ are slightly bent inward at the apex in the males, and the basal joint of the anterior tarsus is slightly enlarged.

Very common, and widely distributed.

Gyllenhal applies Marsham's name "ferruginea" to the species next to be described, stating that he has Kirby's authority for so doing; this is remarkable, since the *C. ferruginea* of Gyll. (a very uncommon insect with us) does not exist in Kirby's Collection, where the present species stands to represent the *C. ferruginea* of Marsham, as it does likewise in Stephens' Collection. There is no Marshamian specimen of either this or the next species in Stephens' Cabinet, and Marsham's description unfortunately does not serve to determine the insect, inasmuch as he uses the term "ferruginea" to denote its colouring; the present species being testaeeous, and the next being castaneous. On the whole, however, I think it more probable that Marsham's description was intended for the common species; yet, since there may be a doubt, I think it better to adopt the names now universally used for the two insects.

8. Corticaria ferruginea. C. sub-linearis, depressa, castanea, capite nigricante; thorace sub-quadrato, postice foveolato; elytris subtiliter punctato-striatis, interstitiis subtilissime seriatim punctatis.

Long. $\frac{3}{4}$ — $\frac{5}{6}$ lin.

Latridius ferrugineus, Gyll. Ins. Suec. iv. 131, 9. Corticaria ferruginea, Steph. Illustr. iii. 108, 6; Manual, 130,

1052.

_____, Mannerh. Germ. Zeitschr. v. 45, 36. _____ linearis, of Stephens' Collection.

Scarcely longer, but decidedly broader than the preceding species, and further distinguished by its chestnut-brown hue and more delicate puncturing. Head pitchy black, rather narrower than the thorax; forehead convex, punctured; antennæ about equal to the head and thorax in length. Thorax subquadrate, rather broader than long; truncated in front; slightly contracted behind, the sides very gently rounded, obscurely denticulate anteriorly, and with about three stronger teeth behind, the last of which forms the posterior angle of the thorax; the hinder margin rounded; upper surface convex, rather thickly and finely punctured, and with a small fovea behind. Elytra about three times the length of the thorax, but very little exceeding that segment in width; the sides nearly parallel; the apex rounded; the upper surface but little convex and very finely punctate-striate, with a row of excessively minute punctures between the striæ, from which spring minute hairs, which are scarcely visible, however, excepting under the microscope. Presents the same peculiarities of the tibiæ and anterior tarsi as in the preceding species.

Two specimens of this species stand in Stephens' Cabinet to represent the *C. linearis* of the "Illustrations," but the description there given is taken from Gyllenhal, and belongs to another insect, which is unknown to me as British. In Mr. Wollaston's Collection there are also specimens of this insect. I possess one or two old specimens, taken by myself many years back, but am unaware of the locality; others I have taken more recently in the corridors of the Crystal Palace upon two or three different occasions. It is rare, or very local.

 Corticaria gibbosa. C. brevis, convexa, fusca; thorace angusto, fovea transversa, arcuata, impresso; elytris amplis, convexis, punctato-striatis, intersticiis punctis minutissimis, pilisque pallidis seriatim dispositis; antennarum basi, pedibusque testaceis.

Long. 😤 lin.

Mas. tibiis anticis intus ante apicem angulatim productis.

Dermestes gibbosus, Payk. Faun. Suec. i. 301, 32.

Corticaria impressa, Marsh. Ent. Brit. 100, 11; Steph. Collection.

----- pallida, Marsh. l. c. 112, 22; Steph. Illustr. iii. 109, 10; Manual, 130, 1056, and Collection.

Latridius gibbosus, Gyll. Ins. Suec. iv. 132, 10.

Corticaria gibbosa, Steph. Ill. iii. 109, 8; Manual, 130, 1054.

------ similata, Steph. Collection (not of description).

_____ gibbosa, Mannerh. Germ. Zeitschr. v. 49, 40.

The smallest, and one of the commonest of the British species, and readily distinguished by its short form, combined with a narrow thorax, having a curved fovea towards the hinder part and extending almost to the lateral margin. The head is nearly as broad as the thorax, and has very prominent eyes. Thorax small in proportion to the elytra, about equal in length and breadth, the sides gently rounded, the broadest part rather in front of the middle, thence rather suddenly contracted towards the front, and more gradually contracted behind; the posterior angles obtuse; the hinder margin rounded. Elytra at the broadest part more than twice the breadth of the thorax, of a shortish ovate form, with the humeral angles rather prominent and rounded.

This insect stands in Stephens' Cabinet under the names "*impressa*," *pallida* (immature specimens) and *similata*; the last being regarded as the *similata* of Gyllenhal, has given rise, it would appear, to the introduction of that author's description into the "Illustrations." I have not met with any *Corticaria* which I could identify with Gyllenhal's description of *Latridius similatus*. Both in Stephens' and Kirby's Collections immature specimens of this insect are referred to the *Corticaria pallida* of Marsham.

10. Corticaria Wollastoni. C. oblongo-ovata, convexa, picea, antennis pedibusque testaceis; thorace angusto, subquadrato, lateribus ante medium paulo rotundato-ampliatis, angulis posticis rectis, supra crebrins punctato, postice transversim impresso; elytris fuscis, oblongo-ovatis, humeris prominulis, punctato-striatis, interstitiis convexiusculis, seriatim pilosis.

Long $\frac{5}{3} - \frac{7}{3}$ lin.

This species bears considerable resemblance to the *C. gibbosa*, but is much larger, and proportionately more elongate; the posterior angles of the thorax form right angles, the interstices of the striæ of the elytra are impunctate or very nearly so.

Head with the upper surface convex, rather distinctly but not very thickly punctured, the eyes prominent, giving to the head a width which is but little less than that of the thorax; antennæ testaceous, the club only somewhat tinted with fuscous, the joints rather more elongate than in C. gibbosa. Thorax but little broader than long, convex, the sides rounded on the fore part, but straight near the posterior angle, the broadest part rather in front of the middle, the fore part truncate, the hinder margin produced and rounded in the middle, the surface rather thickly punctured, and with a transverse depression behind, which is interrupted in the middle; elytra ample, oblong-ovate, with the humeral angle a little prominent, at the broadest part twice as broad as the thorax; paler than the head and thorax, but with the suture and outer margin more or less dusky; convex, and by no means strongly punctate-striate, the interstices at the base slightly convex, and, with a very strong lens, show a few scattered, and

extremely minute punctures, arranged in a line, in which same line is a series of minute pale hairs.

In the structure of the legs I can perceive no sexual distinction, such as exists in *C. gibbosa*, but it must be remarked that I have examined but six specimens of the supposed new species; these were found by Mr. Wollaston, at Mablethorpe.

The British Museum has received this insect from the Continent, under the name of C. distinguenda of Comolli, but according to the description of that insect, its thorax must be shorter, *i. e.* half as broad again as long. The C. similata must somewhat resemble the present species, but differs, according to the descriptions, in having the interstices of the striæ of the elytra rugulose. I can find no description of a *Corticaria* which is like C. gibbosa in most of its characters, but which differs in the same manner as the present insect.

11. Corticaria fuscula. C. breviter ovata, fusco-picea, thorace transverso, angulis posticis denticulo minuto armatis, supra crebre punctato, fovea sub-rotundata impresso; elytris fuscis, punctato-striatis, interstitiis convexiusculis, seriatim pilosis; antennaraum basi, pedibusque testaceis.

Long. $\frac{2}{3}$ — $\frac{3}{4}$ lin.

Latridius fusculus (Megerle), Gyllenhal, Ins. Suec. iv. 133, 12. Corticaria impressa, of Kirby's Collection.

Very like C. gibbosa, but readily distinguished by the form of the thorax, which is broad (about one-third broader than the head), transverse, has the sides boldly rounded, the widest part a little in front of the middle, the posterior angle armed with a minute tooth and thus rendered acute and prominent; this tooth, however, is not readily seen, excepting the thorax be separated from the body; instead of the curved groove, which in C. gibbosa extends nearly from side to side of the thorax, C. fuscula has only a fovea behind, and this is commonly transverse. The elytra scarcely differ from those of C. gibbosa-the strize are perhaps usually rather stronger, and the intersticial punctures less so. In the most common condition the head and thorax are pitchy, or pitchybrown, and the elytra brown, with the suture rather dusky; but, not unfrequently, the whole insect is brown; and, about the beginning of September this year, I found many specimens at Southend, which were entirely testaceous-no doubt from immaturity. In both the above-mentioned species minute transverse rugulæ

are seen on the basal part of the elytra, when viewed in a favourable light and position. The male of C. fuscula has a minute denticle near the apex of the anterior tibia on the inner side. This species is as common as the preceding. It is remarkable that this very common insect is not described by Stephens; it stands in his Cabinet under the name "Sulcicollis," and the description given in the "Illustrations," p. 109, sp. 9, which is taken from Gyllenhal's account of Latridius transversalis (see Gyll. iv. 133, 11), was evidently supposed to belong to this species; it. however, belongs to an insect of which I have seen no British example. In Stephens' "Systematic Catalogue," C. sulcicollis of Kirby's MSS, is given as = L. transversalis of Gyllenhal, but according to Kirby's Collection the insect is = C. gibbosus of Gyll., C. impressa of Kirby's Collection being = L. fusculus of Gyllenhal. I cannot think that Kirby is correct in referring this to the C. impressa of Marsham.

VOL. V. N. S. PART IV. --- NOV. 1859.